

# Building Wonderful Playgrounds

What does it take to create a great playground? Landscape Structures has spent over 30 years helping people answer this question. Inside you'll discover everything you need to begin your project.

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# Define your objectives

A great playground plan aims to provide maximum play value and safety for the kids of your community, while limiting your risks and maintenance costs.

Your answers to the following questions will help focus your remaining decisions for this playground project:

- Why are you planning/revising your playground? What do you hope to accomplish? In addition to providing a play space, what philosophical objectives do you have? Fostering community involvement? Demonstrating environmental responsibility? Creating an environment within a theme? Building a highly integrated/accessible playground?
- Budget: How much can you afford to spend? Are you limited to a specific amount, or will you be able to add to an initial amount through fund-raising activities? What does your budget cover? The cost of the equipment only, or must it also include site preparation, freight charges, protective surfacing, installation, etc.?

*Tip* You may find some valuable insights in Landscape Structures' Community Built Guide, where we offer suggestions for fund raising, organizing volunteers, and how to save money on installation by using professionally supervised volunteers. You can request a Community Built Guide from your Landscape Structures representative.

- Time frame: What is the time frame for the project? Do you have a deadline for completing the playground? This may be a good time to set up a tentative schedule for planning, review, equipment purchase, site preparation and installation.
- Measuring success: How will you measure the success of your project? Will you count the number of kids using the equipment? Survey parents and kids? Confirm that it meets current safety and accessibility regulations? Track maintenance time and costs against initial expectations?



# Assess your needs

Once you've established your objectives, it's time to focus on the details. Our playground design process includes a form, "Planning Your Playground," that asks specific questions about your playground project. You can download this form from our web site or request it from your Landscape Structures representative.

- Overall budget
- Number of children
- Age distribution
- Size and budget of area for each age group
- Target dates
- Specific equipment requests
- Special uses or needs
- Approvals required
- Plans for existing equipment, if any
- Number of phases, if any

Check with people in the community who will be affected by a new playground — children, parents, teachers, neighborhood residents. They can help answer these questions and will help guide your decisions. And, don't forget to consult with the people who will maintain the playground after it's built.

*Tip* "Pride in your playground" is one of the best deterrents to vandalism; involving the whole community in the planning process minimizes vandalism.



# Analyze your site

No two sites are identical; the characteristics of your site, from both natural and man-made elements, can have a strong influence on your playground's design. A thorough site analysis, conducted with the help of a professional, will contribute to a more economical installation, greater user satisfaction, better aesthetics and lower maintenance costs.

## NATURAL ELEMENTS

**TOPOGRAPHY:** The slope or topography of your site is the most critical element you'll need to consider. Even a site that looks level may have significant elevation changes that will affect drainage, and it is important that surface water drains away from your playground.

**SOIL:** Soil conditions will influence the stability and drainage of your playground. It pays to understand the four basic soil types: sandy, clay, loam and peat, or "high organic matter" soils.

At your site, soil acidity, stability and drainage may put special demands on equipment. A landscape architect or a Landscape Structures representative can provide guidance on soil-related issues and drainage.

**VEGETATION:** Existing vegetation can enhance the perimeter of a play area by providing shade and a more aesthetically pleasing environment. Yet certain varieties of trees and shrubs may be less desirable than others because of falling fruit, thorns, poisonous leaves, or low resistance to construction stresses and transplanting. Consulting a landscape architect or nursery before you plant can be very helpful.

**CLIMATE AND NATURAL FORCES:** Prevailing winds, temperature norms, seasonal sun angles, and precipitation can affect the orientation and life-span of your play equipment and should be considered when deciding on the orientation of your equipment. Also keep in mind that flood-prone sites will increase maintenance costs while limiting "playable" days.



## MAN-MADE ELEMENTS

**UTILITIES:** It's easy to avoid building your playground under power and telephone lines. Buried utilities may not be so obvious. Check with your city's engineering department for water and sewer locations, then call electric, gas, telephone and cable TV providers before drawing up your plans.

**CIRCULATION AND ACCESS:** When selecting a site and laying out your play area, we recommend you give careful thought to parking, ease of access, pedestrian and bicycle paths, site furnishings and rest rooms. Also consider providing adequate security in the form of emergency telephones, ease of adult supervision and visibility from the street.



# Select your equipment

Many factors weigh into a play equipment selection. Various equipment styles, manufacturing materials, quality and safety features differentiate your selection possibilities. Also, the Consumer Products Safety Commission (CPSC) recommends separate play areas for preschoolers from ages 2 to 5 and school-age children between ages 5 and 12. As a rule of thumb, 40% of your equipment budget and space should be allocated to preschoolers and 60% to school-age children. We recommend you adjust this ratio depending on the mix of ages using your playground.

## EQUIPMENT TYPES

Most play equipment falls into one of two types.

### COMPOSITE PLAY SYSTEMS

These connected playstructures offer a wide variety of active and social play challenges. A well-designed structure can accommodate a large number of children in a relatively small area.

### INDEPENDENT PLAYTHINGS

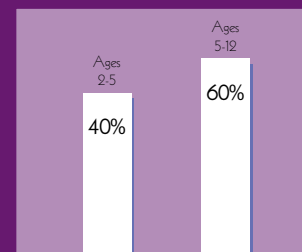
Swings, climbers and spring riders are typical of independent playthings, which should be located a safe distance away from a composite structure.

The best play areas offer both types of equipment to satisfy the needs of a greater range of users.

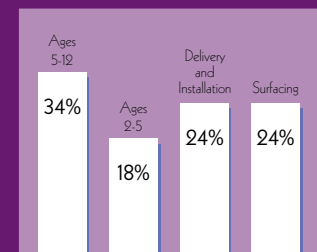
## PLAY ACTIVITIES

When selecting specific events, we recommend you consider:

- Developmental benefits
- Variety
- Liability issues
- Age-appropriateness
- Cost



Budgeting for Equipment Costs by Age



Typical overall budget for a play area of 25 to 30 school-age children and 15 to 20 preschoolers.

## SAFETY

Most manufacturers comply with the CPSC's Handbook for Public Playground Safety and ASTM (American Society for Testing and Materials) Standard F1487 guidelines on equipment design, layout, installation and maintenance. However, when comparing equipment from several manufacturers, you will want to consider all the details as not all products are equally safe or durable. Your Landscape Structures representative will assist you in your assessment.

## AESTHETICS

Do you want playground equipment that blends into its surroundings, or do you prefer a structure that makes a bold statement? What shapes will look best on your playground?

## MATERIALS

Consider the materials used in the equipment you are contemplating. For example, wood has a natural look but it is likely to crack and requires significant maintenance. Some steel products rust quickly in damp or salty areas, making aluminum or stainless steel a better choice for structural parts. Vinyl-coated metals offer users protection against temperature extremes. And plastic parts should be made of high-quality resins with additives to prevent color fading and UV-degradation.



# Choose your surface

## ACCESSIBILITY

The Americans with Disabilities Act (ADAAG) Accessibility Guidelines reinforces today's prevailing emphasis on mainstreaming children of all abilities. Compliance with "equal access" features and overall accessibility to playground equipment is required by the American Disability Act (ADA).

The guidelines for accessible play areas require looking at play areas as a collection of individual play components to determine the minimum amount required to be accessible. Minimum requirements are based on the number of ground level and elevated play components provided.

More complete information on accessibility may be found on our web site, or by contacting your Landscape Structures representative.

## OTHER ISSUES

When making a final purchase decision, you will also want to consider these important points:

- Ease of installation (and availability of professional installers, when needed)
- Follow-up support services available from the representative
- Durability of materials
- Manufacturer's playground-specific maintenance program
- Manufacturer's warranty
- Cost of ownership over the life of your equipment
- Delivery time

One of the best ways to review the choices is to visit existing playgrounds, both old and new. See how the equipment wears over time, talk to the maintenance crew, and seek references from other parks or schools who have purchased similar equipment.

Your Landscape Structures representative will give you a list of Landscape Structures' playgrounds in your area or you can take a "Field Trip" on our web site to see playgrounds on-line.

According to the Consumer Product Safety Commission, falls to the surface account for nearly 70% of all playground injuries. Such injuries can be reduced with a shock-absorbing surface that has a critical height rating equal to or above your play equipment's highest accessible part (CPSC/ASTM).

## SURFACING OPTIONS

- "Loose-fill" material with retaining edger. Engineered wood fiber, sand, pea gravel, rubber products such as PlayTurf® and other bulk materials are the least expensive and are easy to install, but they do require more maintenance to meet CPSC guidelines. The CPSC Handbook shows "critical height" values for adequate protection with the most common loose-fill materials.
- Resilient tiles, like TuffTurf®, or other factory-engineered materials provide a guaranteed critical height value and require little maintenance. Such tiles are mainly used for wheelchair access paths and high wear areas because of cost considerations.
- Poured-in-place rubber surfaces are available in a wide variety of colors and shapes. These surfaces are usually more expensive but are extremely durable and require significantly less maintenance than other surfacing options.

Costs of these surface materials vary widely, and can account for up to 50% or more of your playground's total cost.





# Prepare your plan

Once you've made critical decisions on your site and equipment, it's time to formalize your plans so you can move ahead to implementation. Your Landscape Structures representative will assist you every step of the way.

#### SCALE DRAWINGS

Your landscape architect, city engineering department or other professional can provide you with a scale drawing that shows site boundaries, dimensions, orientation, overall improvements and site details of the playground area.

#### SPECIFICATIONS

It is important to create a written specification of the materials that are to be used in your playground, compliance with regulations and industry standards, the engineering details of your play activities and safety features.

#### COSTS

Using your budget as a starting point, create a detailed breakdown of planned expenditures for your site, equipment, installation and future maintenance.

#### FINAL STEPS

Before you sign a purchase order, you'll need to carefully review the design specifications and obtain any required approvals. You can submit your drawings and specifications to your Landscape Structures representative for assistance.

The final decision on what to buy and where to buy should come from the person or committee that has been most involved in the planning process and is ultimately responsible for the playground's success. Playground equipment is like most other products — you get what you pay for. Selecting the lowest price is often not the best decision.



# Install your playground

Budget requirements usually mean that installation decisions are made during planning stages.

- Volunteer installation, often with the supervision of a professional installer. (Landscape Structures offers a complimentary guide to the Community Built process which you can request from your representative.)
- Professional installation by an insured and factory-certified crew.
- A combination of the above: e.g., site preparation by your own workers, followed by the professional assembly and installation of equipment.

If you choose the volunteer route, we strongly recommend that you secure the services of a professional installer to supervise your installation and inspect the finished equipment. Before you begin installation, volunteers should be instructed to carefully review safety precautions as well as sign a liability waiver to protect your organization in case of an accident. Ask your Landscape Structures representative about the availability of volunteer's installer's insurance.

Last but not least, throw a grand opening party to help children and adults "bond" with their new playground.



# Maintain your playground

It's hard to think about inspections and repairs when you haven't yet built your new playground. Still, industry estimates blame poor maintenance for at least one-third of all playground injuries — which means that early maintenance planning can minimize pain, suffering and lawsuits over the long haul.

## KEY POINTS TO CONSIDER

- Budget time and money for safety surface maintenance. The frequency of maintenance may vary depending on usage, but all materials require it.
- Prioritize your repairs list with those most serious at the top.
- Schedule inspections using detailed checklists from the manufacturer. Landscape Structures customizes maintenance kits for each individual playstructure purchase. This kit may help you determine maintenance frequency and guide you through the maintenance process.

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